

DEFINITIONS OF TWO NEW SPECIES OF SOUTH AUSTRALIAN POLYPLACOPHORA.

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The discovery of the two new species of mollusca described in this paper is one of the many valuable results of Dr. Verco's dredging trips. Their discovery is of particular interest, because both genera are, as far as our present knowledge goes, very poorly represented in any part of the globe. Only one species of *Callochiton* has before been recorded from this colony. Henry A. Pilsbry, in his "Manual of Conchology," says of this genus and its allied genera—"Of the whole series there are very few species known. All of them are rare." And the other subgenus *Stenochiton* is only represented by two or three species, though the allied subgenus *Stenoplax*, to which the species herein described bears some affinity, is a little better represented; but no representative has yet been recorded from this colony.

Ischnochiton (Stenochiton) pallens, *sp. nov.* Pl. i., figs. 1a—g.

General Appearance.—Shell glossy, elongated, anterior portion tapering to rear. Evenly arched and rounded, side slope curved. *Colour*.—Cream, mottled with pink and pale brown.

Anterior Valve.—Smooth and glossy, except for several growth lines—that nearer the outer margin being the deeper. This valve is longitudinally much shorter than is the case in *Stenochiton juloides* and *S. Pilsbryanus*. Slits 13, at very irregular distances apart.

Posterior Valve.—Shield-shape tapering rapidly, mucro posterior, only slightly raised. A deep sulcus traverses the whole valve a short distance from the margin, preserving the shield outline of the shell. A shallow diagonal depression crosses the valve from the mucro to the suture. Surface of shell glossy and smooth, slight growth lines visible under the microscope. Slits six; the teeth are very irregular in contour.

Median Valves.—Uniformly smooth and glossy, showing numerous growth lines, which are continued right across the dorsal area. The three areas are hardly distinguishable, except that the lateral area is slightly raised. The posterior margin is finely serrated like a file where the valves are not worn. Four of the median valves have one broad wedged-shaped slit on each side; two valves have two slits on each side. Inside of shell

glossy white, sinus broad and shallow, sutural laminæ only slightly produced.

Girdle.—Under pocket lense appears whitish and felt-like. The margined fringed with white spicules, but under one-inch objective the girdle is seen to be crowded with masses of small irregular imbricating scales, which are finely striated.

Measurement.—Length, 26 mm.; breadth, 7 mm.

Habitat.—St. Vincent's Gulf; dredged by Dr. Verco.

Remarks.—This species is much broader in proportion to its length than *juloides*, the first valve being the broadest and very rounded, the width being fairly maintained to the sixth valve inclusive. Valves seven and eight taper rapidly, the latter being almost pointed. It is also easily distinguishable from *juloides* and *Pilsbryanus* by the anterior valve being longitudinally much shorter, the creamy white colour, and the densely irregularly scaled girdle. I am indebted to Dr. Verco for specimens of this and the following species.

Callochiton rufus, *sp. nov.* Pl. i., figs. 2a—g.

General Appearance.—Shell oval, width three-fifths of total length, carinated, side slopes very curved. *Colour*.—Uniformly bright terra-cotta red, both shell and girdle, with the exception of a small white spot on dorsal area of valves three to eight, and the lateral area of valve seven, which is pure white; from this valve a white line traverses the girdle; also the four first valves have a light spot on the posterior margin.

Anterior Valve.—Under pocket lense quite smooth, with the exception of a few concentric growth lines. Megalospores are very distinct under compound microscope. Slits 11, teeth crenulate, which appearance is caused by the slight projection of the props. The spongy character of the eaves is continued in the slits between the teeth.

Posterior Valve is almost equally divided into two areas, the dorsal, or central, broadly wedge-shaped, traversed by eight longitudinal strongly raised ribs, similar to those of the pleural areas of the median valves. Mucro median, although shallow, decidedly more prominent than in *C. platessa*. Posterior area smooth, decidedly raised at the junction with the dorsal area. Slight concentric growth lines are discernible.

Median Valves.—Lateral area much raised, slight growth lines; also two or three shallow vertical sulci just distinguishable. *Densely pitted with megalospores, which are very distinct. Pleural area longitudinally ribbed with scimitar-shaped riblets. The pits between are very deep where they join the lateral area. Dorsal area is raised, wedge-shape, divided from the pleural area by a deep spindle-shaped pit, tapering off into a curved groove at

anterior margin. A small white spot on valves three to eight. Slightly beaked. Under one-inch objective this area is closely ribbed with wavy longitudinal riblets. Slits two each side, eaves very spongy, teeth propped.

Girdle.—Broad, under pocket lense leathery, same red colour as valves, fringed at margin. Under one-inch objective is seen to be densely clothed with evenly packed, long, linear scales or spicules. These are arranged in rows, the apices curving across to the next row.

Measurement.—Length, 16 mm.; breadth, 10 mm.

Habitat.—Dredged St. Vincent's Gulf by Dr. Verco; one specimen only.

Remarks.—In general appearance this species closely resembles the bright red form of *Chiton tricostalis*, but on closer inspection the sculpture is seen to be widely different. The ornamentation in some respects approximates to *Callochiton platessa*, but that species is much more strongly pitted or decussated, and the longitudinal scimitar-shaped sulci are absent; also it is more strongly beaked than the species now described. Only one specimen has been obtained, and only the insertion plates of the first two valves have been examined.

